

# Implementation of Women's Elderly Exercises in RW 08 Jayagiri Lembang Village, West Bandung District

 Fahmi Fuadah<sup>1\*</sup>,  Berlyna D Saragih<sup>2</sup>,  Herwinda Sinaga<sup>3</sup>,  Henni Purnasari<sup>4</sup>,  
 Iriyanti Harun<sup>5</sup>,  Yohanes Adi<sup>6</sup>

<sup>1,2,3,4,5,6</sup>Institut Kesehatan Immanuel, Bandung, Indonesia  
✉ [bungsu.fahmi05@gmail.com](mailto:bungsu.fahmi05@gmail.com)\*

**Article Information:**

Received January 15, 2024  
Revised January 24, 2024  
Accepted January 31, 2024

**Keywords:**

Exercise; Hypertension;  
Women's Elderly

**Abstract**

Hypertension is a health problem that is often encountered in the elderly and can increase the risk of heart disease and stroke. Elderly exercise has been recognized as having benefits in improving physical and psychological health. This community service aims to carry out the tridharma activities of higher education which are always held once a year. This study aims to evaluate the effect of an elderly exercise program on the management of hypertension in the elderly. The method used was checking the blood pressure of the elderly before and after the implementation of the elderly exercise program which was carried out on September 13 2023. This community service was carried out in RW 08 Jayagiri Village, Lembang District, West Bandung Regency. Followed by 32 elderly women. The results of the study showed significant changes in blood pressure from previously having high blood pressure above 140/90 as much as 70%. After carrying out the elderly exercise, blood pressure was checked again with the results decreasing below 140/90 by 65%. The conclusion from this community service activity is that there is a significant reduction in blood pressure in the elderly after carrying out elderly exercise. Elderly exercise can be an effective approach in treating hypertension in the elderly. The community service activities carried out went well. This can be seen from the enthusiasm of the elderly women during the activity.

**A. Introduction**

Hypertension is an increasingly common health problem in older people worldwide. Due to the aging process and associated changes in the body, older adults are at higher risk of developing high blood pressure. The high incidence of hypertension in the elderly increases the risk of cardiovascular disease, stroke and other complications, which can reduce quality of life and increase mortality (Ardayani et al., 2023; Bai et al., 2020; Laurent & Boutouyrie, 2020; Wang et al., 2020).

Medication is a common approach to treating high blood pressure (Al-Makki et al., 2022; Poulter et al., 2020). However, some elderly people may experience side effects from treatment or have contraindications to the use of certain medications. Therefore, research continues to be carried out on non-pharmacological alternatives such as: Exercise for the elderly as part of research efforts for the treatment and management of hypertension in the elderly. Exercise for the elderly is recognized as a form of intervention that provides physical, psychological and social benefits for the elderly. Exercise programs for older adults usually include exercises to improve strength, flexibility, and balance. Regular exercise for the elderly can improve blood pressure control, reduce the risk of falls, and improve the overall quality of life for the elderly. Although there is evidence to support the benefits of exercise for the elderly, more specific and targeted research needs to be conducted regarding the impact of exercise on the treatment of hypertension in the

**How to Cite**

: Fuadah, F., Saragih, B. D., Sinaga, H., Purnasari, H., Harun, I., & Adi, Y. (2024). Implementation of Women's Elderly Exercises in RW 08 Jayagiri Lembang Village, West Bandung District. *Aktual: Jurnal Pengabdian Kepada Masyarakat*, 2(1), 60–65. <https://doi.org/10.58723/aktual.v2i1.175>

**ISSN**

: 2987-6052

**Published by**

: CV Media Inti Teknologi

elderly. In addition, community outreach is an important approach to evaluate the effectiveness of public health interventions (Choi et al., 2020; Kushkestani et al., 2022; Liang et al., 2020).

Elderly exercise is an alternative activity to lower blood pressure that can be done every day by all elderly people (Emilyani et al., 2021). This is in accordance with the results presented by Wang, Y., et al. through community service, research can be carried out directly in the community through the active participation of the individuals and groups being researched. This allows research results to be translated directly into people's daily lives, so that those affected can immediately see the benefits. In this context, this study aims to evaluate the effectiveness of an elderly exercise program for treating hypertension in the elderly through a non-profit approach. By taking into account the elderly's active involvement in society, it is hoped that this research would lead to a better understanding of the potential benefits of exercise for the old as a non-pharmacological treatment for hypertension.

The World Health Organization (WHO) estimates that 1.13 billion adults worldwide suffered with hypertension in 2015, up from 594 million in 1975. The majority of these cases occurred in low- and middle-income nations. One in three persons worldwide are diagnosed with hypertension, primarily as a result of an increase in risk factors for hypertension in this population. By 2025, an estimated 1.5 billion individuals worldwide are expected to suffer from hypertension, and the condition's repercussions are expected to claim 9.4 million lives annually (Firdaus & Rezeki, 2020; Moloro et al., 2023; Temitope et al., 2023).

The general symptoms caused by suffering from hypertension are not the same for everyone, and can even occur without symptoms (Badri & Harefa, 2022; Murwani et al., 2022; Wijayanti et al., 2023). In general, the symptoms complained of by hypertension sufferers include headaches, soreness and discomfort in the nape of the neck, a feeling of spinning, feeling like you want to fall, palpitations or a fast heartbeat, and a ringing sound in the ears (Susyanti & Rahayu, 2022; Suwaryo et al., 2022). According to Ibrahim et al. (2018), there are many ways recommended by the World Health Organization (WHO) to reduce risk factors for hypertension, such as reducing salt intake, eating nutritious foods, exercising regularly, avoiding smoking, and avoiding drinks that contain high levels of alcohol. Apart from that, many people also recommend using traditional medicine to prevent and treat hypertension.

In the context of higher education tridharma activities, namely community service, collaboration with all lecturers at the Immanuel Health Institute in various fields of study programs. Interprofessional collaboration in community service activities for checking blood pressure in elderly women before and after doing elderly exercise. Through this activity, it is hoped that institutional lecturers can play an active role in improving the health of the elderly by carrying out routine health checks, especially in RW 08, Jayagiri Village, Lembang District, West Bandung Regency.

## B. Research Methods

The method used in this community service activity is quasi experiment one group pre and post-test. This community service activity was carried out in the form of filling out a questionnaire and elderly exercise activities guided directly by a health instructor with the activity title "Blood Pressure Checks for Elderly Women before and after carrying out Elderly Exercises at RW 08 Jayagiri Village, Lembang District, West Bandung Regency". Forms of activities in public health services include 1) Blood pressure checks on elderly women before elderly exercise; 2) Pregnancy exercise activities guided by a health instructor and attended by all elderly women present; 3) Checking blood pressure in elderly women after doing elderly exercise. This activity was organized by Lecturers at the Immanuel Health Institute, consisting of lecturers from the Public Health, Nursing, Midwifery, Nutrition and Hospital Service Management study programs.

The activity was carried out on site/direct visit to RW 08 Jayagiri Village, Lembang District, West Bandung Regency. This community service activity is carried out through a planning, implementation and evaluation process. With direct implementation in the field on September 13 2023. Participated by 32 elderly women. Carrying out community service activities using a blood pressure meter to check blood pressure and practicing exercise for the elderly with the help of YouTube videos. Next, a discussion was held with the participants regarding the interventions that had been carried out, ending with an evaluation of the interventions provided.

### C. Results and Discussion

The community service activity "Blood Pressure Checks for Elderly Women before and after doing Elderly Gymnastics" in RW 08 Jayagiri Village, Lembang District, West Bandung Regency, on September 13 2023 was carried out well. This service activity was attended by 32 elderly women.

The stages of service activities that have been carried out are as follows:

#### 1. Service Preparation

Preparation for Jayagiri Village to be used for community service activities in coordination with Lembang District, West Bandung Regency and Jayagiri Community Health Center. Who then coordinated with the cadres on duty at RW 08 Jayagiri Village, Lembang. This section contains research results and discussion and can be presented in the form of descriptions, charts or images.

#### 2. Implementation of Services

##### a. Opening

This activity began with an opening and introduction to the implementation of community service by the chairman of working group 3 of community service, Berlyna D. Saragih, S.Kep., Ners., M.Kep. Registration for elderly women who are already present at the activity location is by filling in the attendance list that has been prepared.

##### b. Delivery of material

###### 1) Blood pressure checks for elderly women present by all Immanuel Health Institute lecturers



**Figure 1.** Checking Blood Pressure Before Carrying Out Elderly Exercises

###### 2) Elderly exercise activities guided by Herwinda Sinaga, S.Kep., Ners., M.KM assisted by YouTube video media



**Figure 2-3.** Implementation of Elderly Gymnastics by Instructors

- 
- 3) Checking blood pressure in elderly women after participating in elderly exercise to see changes in blood pressure results before and after elderly exercise.



**Figure 4.** Blood Pressure Check After Elderly Exercise

### 3. Closing and Evaluation of Activities

The community service activities carried out went well. This could be seen from the enthusiasm of the elderly women who had the opportunity to attend this activity.

#### Expected Results from Community Service Activities

- 1) Increased enthusiasm among elderly people to carry out regular health checks at health service locations
- 2) Every elderly person can do elderly exercise activities every day at home, especially to lower blood pressure
- 3) Good cooperation between universities and the community, especially in Jayagiri Lembang Village, West Bandung Regency

### D. Conclusion

There is a significant reduction in blood pressure in the elderly after elderly exercise. Elderly exercise can be an effective approach in treating hypertension in the elderly. The community service activities carried out went well. This can be seen from the enthusiasm of the elderly women during the activity. It is hoped that this program will continue and be improved by health services in the RW 08 Jayagisi Village, Lembang District, West Bandung Regency, so that it can improve the health status of the elderly in particular.

### E. Acknowledgments

The community service team would like to thank LP2M Immanuel Health Institute for providing support and coordination to Jayagiri Village, Lembang District, West Bandung Regency. Thank you to the Jayagiri Community Health Center, the sub-district head, heads of RW, RT and RW 08 cadres, Jayagiri Village, Lembang District, West Bandung Regency, as well as the community and all lecturers at the Immanuel Health Institute.

### References

- Al-Makki, A., DiPette, D., Whelton, P. K., Murad, M. H., Mustafa, R. A., Acharya, S., Beheiry, H. M., Champagne, B., Connell, K., Cooney, M. T., Ezeigwe, N., Gaziano, T. A., Gidio, A., Lopez-Jaramillo, P., Khan, U. I., Kumarapeli, V., Moran, A. E., Silwimba, M. M., Rayner, B., ... Khan, T. (2022). Hypertension pharmacological treatment in adults: A world health organization guideline executive summary. *Hypertension*, 79(1), 293–301. <https://doi.org/10.1161/HYPERTENSIONAHA.121.18192>
- Ardayani, T., Damayanti Saragih, B., Melia, S., Rejeki, S., Sinaga, H., Adie, Y., & Tanti, L. (2023). Overcontrol, Prevention and Treatment of Hypertension Through Health Counseling in North

- Margahayu Village, Bandung City. *Jurnal Ilmiah Pengabdian Masyarakat Bidang Kesehatan (Abdigermas)*, 1(2), 73–77. <https://doi.org/10.58723/abdigermas.v1i2.13>
- Badri, I. A., & Harefa, C. M. (2022). Studi Kasus: Penderita Hipertensi Dengan Penerapan Jus Tomat. *Jurnal Kesehatan Mercusuar*, 5(1), 6–11. <https://doi.org/10.36984/jkm.v5i1.259>
- Bai, T., Fang, F., Li, F., Ren, Y., Hu, J., & Cao, J. (2020). Sarcopenia Is Associated with Mortality in Adults: A Systematic Review and Meta-Analysis. *BMC Geriatrics*, 20, 1–9. <https://doi.org/10.1186/s12877-020-01672-y>
- Choi, H. M., Hurr, C., & Kim, S. (2020). Effects of elastic band exercise on functional fitness and blood pressure response in the healthy elderly. *International Journal of Environmental Research and Public Health*, 17(19), 1–10. <https://doi.org/10.3390/ijerph17197144>
- Emilyani, D., Dramawan, A., & Cembun, C. (2021). Efektifitas Model SELADA (Senam Lansia Rudat) Terhadap Penurunan Tekanan Darah Pada Lansia di Kabupaten Lombok Barat. *Jurnal Keperawatan Terpadu (Integrated Nursing Journal)*, 3(2), 85–97. <https://doi.org/10.32807/jkt.v3i2.267>
- Firdaus, M., & Rezeki, N. T. (2020). Pengaruh Mengkonsumsi Air Rebusan Daun Binahong (Anredera Cordifolia) Terhadap Penurunan Tekanan Darah Tinggi Pada Lansia Di Upt Pstw Khusnul Khotimah Pekanbaru. *Journal of STIKes Awal Bros Pekanbaru*, 1(2), 29–37. <https://doi.org/10.54973/jsabp.v1i2.23>
- Ibrahim, Dewi, R. I. S., & Utami, D. P. (2018). Pengaruh Daun Binahong (Anredera cordifolia) Terhadap Tekanan Darah Pada Penderita Hipertensi Di Wilayah Kerja Puskesmas Lubuk Buaya. *Jurnal Abdimas Saintika*, 1(1), 93–103. <https://doi.org/10.30633/jas.v1i1.475>
- Kushkestani, M., Parvani, M., Ghafari, M., & Avazpoor, Z. (2022). The role of exercise and physical activity on aging-related diseases and geriatric syndromes. *SPORT TK-EuroAmerican*, 11(6), 1–31. <https://doi.org/10.6018/SPORTK.464401>
- Laurent, S., & Boutouyrie, P. (2020). Arterial Stiffness and Hypertension in the Elderly. *Frontiers in Cardiovascular Medicine*, 7(October), 1–13. <https://doi.org/10.3389/fcvm.2020.544302>
- Liang, H., Luo, S., Chen, X., Lu, Y., Liu, Z., & Wei, L. (2020). Effects of Tai Chi exercise on cardiovascular disease risk factors and quality of life in adults with essential hypertension: A meta-analysis. *Heart and Lung*, 49(4), 353–363. <https://doi.org/10.1016/j.hrtlng.2020.02.041>
- Moloro, A. H., Seid, A. A., & Jaleta, F. Y. (2023). A systematic review and meta-analysis protocol on hypertension prevalence and associated factors among bank workers in Africa. *SAGE Open Medicine*, 11, 1–8. <https://doi.org/10.1177/20503121231172001>
- Murwani, A., Hidayah, S. N., Kusumasari, V., & Hikmawati, A. N. (2022). Analisis Terapi Bekam Sebagai Intervensi Masalah Keperawatan Nyeri Akut Pada Keluarga Dengan Tahap Perkembangan Lansia. *Jurnal Ilmiah Kesehatan Sandi Husada*, 11(1), 147–152. <https://doi.org/10.35816/jiskh.v11i1.721>
- Poulter, N. R., Borghi, C., Parati, G., Pathak, A., Toli, D., Williams, B., & Schmieder, R. E. (2020). Medication adherence in hypertension. *Journal of Hypertension*, 38(4), 579–587. <https://doi.org/10.1097/HJH.0000000000002294>
- Susyanti, S., & Rahayu, R. (2022). Analysis of Nursing Care for the Elderly with Hypertension Using the Practice of Progressive Muscle Relaxation Therapy: A Case Study. *Journal of Health Science and Nursing Studies*, 1(1), 44–56. <https://doi.org/10.58516/jhsns.v1i1.27>
- Suwaryo, P. A. W., Aminah, S., Waladani, B., Setianingsih, E., & Setianingsih, R. (2022). Physiotherapy Treatment of Hypertension Patients to Reduce Headache Using Slow Stroke Back Massage Therapy. *Proceedings of the International Conference on Sustainable Innovation on Health Sciences and Nursing (ICOSI-HSN 2022)*, 1, 176–182. [https://doi.org/10.2991/978-94-6463-070-1\\_22](https://doi.org/10.2991/978-94-6463-070-1_22)
- Temitope, A., Oladosu, G., Bolanle, O., Oluwatoyin, O., Agboola, A., & Oluseye, O. (2023). Prevalence of hypertension and obesity among non-academic staff in a Nigerian University. *World Nutrition Journal*, 7(1), 43–52. <https://doi.org/10.25220/10.25220/wnj.v07.i1.0008>
- Wang, C., Yuan, Y., Zheng, M., Pan, A., Wang, M., Zhao, M., Li, Y., Yao, S., Chen, S., Wu, S., & Xue, H. (2020). Association of Age of Onset of Hypertension With Cardiovascular Diseases and Mortality. *Journal of the American College of Cardiology*, 75(23), 2921–2930.

<https://doi.org/10.1016/j.jacc.2020.04.038>

Wijayanti, E. S., Maryoto, M., & Kurniawan, W. E. (2023). Pengaruh Pemberian Air Rebusan Daun Binahong (Anredera Cordifolia) Terhadap Tekanan Darah Pada Penderita Hipertensi Di Wilayah Desa Jetis Kecamatan Nusawungu. *SENTRI: Jurnal Riset Ilmiah*, 2(3), 671–681. <https://doi.org/10.55681/sentri.v2i3.617>

---

**Copyright Holder**

© Fuadah, F., Saragih, B. D., Sinaga, H., Purnasari, H., Harun, I., & Adi, Y.

**First publication right:**

Jurnal Pengabdian Kepada Masyarakat

This article is licensed under:

